AUTODOC CLUB

How to change track rod end on **BMW E90** – replacement guide

VIDEO TUTORIAL



Important!

This replacement procedure can be used for:
BMW 3 Touring (E91) 325i 3.0, BMW 3 Touring (E91) 318d 2.0, BMW 3 Saloon (E90) 318d 2.0, BMW 1 Coupe (E82) M, BMW 3 Touring (E91) 318i 2.0, BMW 3 Touring (E91) 316d 2.0, BMW Z4 Roadster (E89) sDrive 20 i, BMW Z4 Roadster (E89) sDrive 28 i, BMW X1 (E84) sDrive 20 i, BMW 1 Coupe (E82) 118d 2.0, BMW 3 Coupe (E92) 318i 2.0, BMW 3 Convertible (E93) 318i 2.0, BMW 3 Convertible (E93) 325d 3.0, BMW 1 Hatchback (E81) 116i 1.6, BMW 1 Hatchback (E81) 120d 2.0, (+ 102)

The steps may slightly vary depending on the car design.

REPLACEMENT: TRACK ROD END – BMW E90. TOOLS YOU NEED:



- Wire brush
- WD-40 spray
- Brake cleaner
- Copper grease
- Combination spanner #21
- Drive socket # 16
- Torx bit T40
- Wheel impact socket #17
- Ratchet wrench
- Torque wrench
- Flat Screwdriver
- Vernier caliper
- Hammer
- Wheel chock

BUY TOOLS

Replacement: track rod end – BMW E90. AUTODOC experts recommend:

- Replace tie rod ends in pairs.
- The replacement procedure is identical for the right and left tie rod ends.
- During the installation process, use only new bolts and nuts.
- Please note: all work on the car – BMW E90 – should be done with the engine switched off.

CARRY OUT REPLACEMENT IN THE FOLLOWING ORDER:

1 Secure the wheels with chocks.



2 Loosen the wheel mounting bolts. Use wheel impact socket #17.



3 Raise the front of the car and secure on supports.

4

Unscrew the wheel bolts.

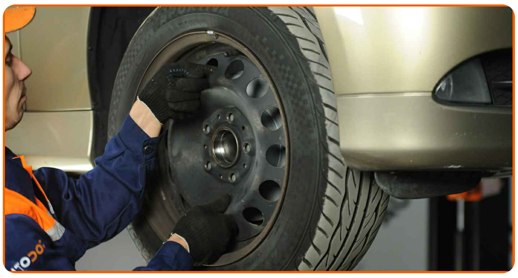


AUTODOC recommends:

- Warning! To avoid injury, hold the wheel while unscrewing the fastening bolts. BMW E90

5

Remove the wheel.

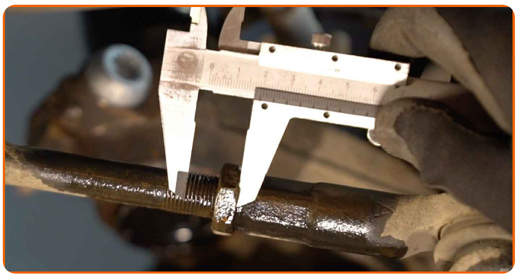


6

Clean the fastener connecting the tie rod end to the steering knuckle. Use a wire brush. Use WD-40 spray.

7

When deinstalling, mark or measure the precise position of the ball joint on the track rod, or count the number of turns in order to prevent misalignment afterward. Use a vernier caliper.



8

Unscrew the end fastening nut to the steering knuckle. Use a combination spanner #21. Use Torx T40. Use a ratchet wrench.



9

Unscrew the rod end fastening. Use a drive socket #16. Use a ratchet wrench.

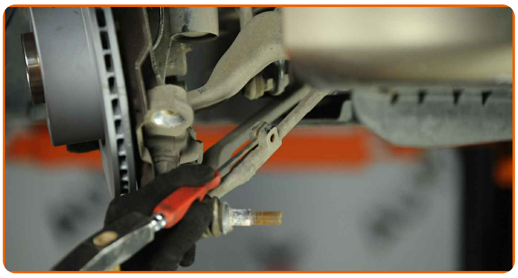


10

Disconnect the tie rod end from the steering knuckle. Use a hammer.

11

Spread the ears for the pinch bolt on the tie rod end. Use a flat screwdriver. Use a hammer.



12

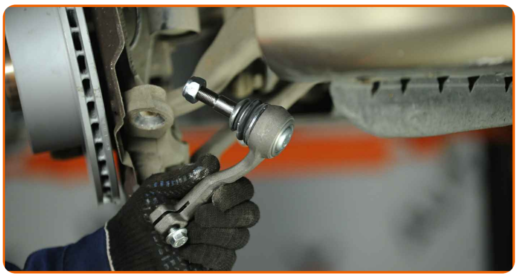
Screw the end out of the tie rod.



13 Clean the mounting seats of the tie rod end. Use a wire brush. Use WD-40 spray.



14 Screw on a new tie rod end.



Replacement: track rod end – BMW E90. Tip from AUTODOC experts:

- While installing the steering rod end remember to make the same number of turns or to leave the same length of thread showing as per your measurements.

15 Connect the tie rod end to the steering knuckle.



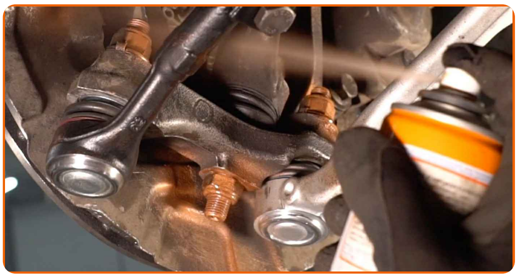
16 Tighten the fastening nut connecting the tie rod end to the steering knuckle. Use a combination spanner #21. Use Torx T40. Use a torque wrench. Tighten it to 165 nm torque.



AUTODOC recommends:

- Important! Be sure to use new fasteners.

17 Treat the fastener connecting the tie rod end to the steering knuckle. Use copper grease.



18 Tighten the rod end fastening. Use a drive socket #16. Use a torque wrench. Tighten it to 40 nm torque.



19 Treat the surface where the brake disc contacts the wheel rim. Use copper grease.



20 Clean the brake disk surface. Use a brake cleaner.



AUTODOC recommends:

- Replacement: track rod end – BMW E90. After applying the spray, wait a few minutes.

21 Install the wheel.



AUTODOC recommends:

- Warning! To avoid injury, hold the wheel while screwing in the fastening bolts on the car. BMW E90

22 Screw in the wheel bolts. Use wheel impact socket #17.



23 Lower the car and working in a cross order, tighten the wheel bolts. Use wheel impact socket #17. Use a torque wrench. Tighten it to 120 nm torque.



Replacement: track rod end – BMW E90. AUTODOC experts recommend:

- Check and adjust wheel alignment if necessary.

24 Remove the jacks and chocks.



WELL DONE!

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